Combustion Branch (RTB)

Conducts fundamental and applied research to advance the technology of advanced injectors, low emissions combustion concepts and combustion processes for aeronautical gas turbine engines and rocket engines. Addresses various types of combustors applicable to high-speed aircraft, rotorcraft, general aviation/commuter aircraft, subsonic transports, launch vehicles, spacecraft and cruise missiles for civil and military applications. Provides improved understanding of combustion processes, with a balance of experimental and analytical effort. Research includes the chemical kinetics of reacting flows, aerosol/particulate, unique fuels, combined cycle propulsion, advanced laser diagnostics, heat transfer phenomena, combustion code development and verification. Conducts experiments and applies advanced computational methods to assess the potential of unique concepts, demonstrate proof-of-concept and advance technology readiness.